Gas Chromatography (GC) Data Auditing Check Sheet

Surveyor: _____

Method: _____ Laboratory: _____ Rev. 2, 8/05

Hard Copy Data Review	Yes	No	Comments
Proficiency Samples:			
1. Analysis date:			
2. PE successful?			
Calibration:			
1. Standard Information			
-Analysis date:			
-Analyst:			
-Instrument ID:			
-Software type:			
-File names:			
2. Quantitation Report and Chromatogram Review			
-Does the lab have adequate hard copy data?			
-Are all standards run the same day/batch? (Check Acquired Times)			
-Is the method update time the same for each?			
-Is the chromatogram info the same as the quant. reports (i.e. same file names, acquisition times, method update times, print time)?			
-Is the chromatogram printed using a scale that is visible?			
-Do the standards have the proper sensitivity?			
-Do the standard peaks have acceptable separation?			
-No significant contamination?			
-Do the peak responses on the quant. reports match those of the calibration summary report (hand calculate a few-especially manual integrations)?			

-Do the calibration levels support the laboratory's reporting levels (check cal. level vs. final report of sample vs. MDLs)?			
-Were an adequate number of calibration standards used based on the calibration range and/or calibration model used?			
3. Calibration Method Information			
-Calibration type (i.e. linear, RF, etc.):			
-Internal Std compounds?			
-Same for all compounds?			
-Was the calibration criteria met for each compound (i.e. RSDs)?			
-"force thru the origin"?			
-If calibrated by internal standards, were correct compounds used? Were all compounds calibrated against the appropriate internal standard?			
-Were data points eliminated from the calibration?			
-If yes, why?:			
-Was this done appropriately?			
-Was the calibration validated by a secondary source standard?			
Attach photo copy documentation of any areas of concern			
Sample Information:			
-Sample date/time (from COC):			
-Were the samples properly preserved?			
Sample Preparation Procedures:			
-Extraction method:			
-Extraction date/time:			
-Did the sample meet the extraction hold time?			
-Is the extraction documentation correct and complete?			

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-Was the extraction acceptable (refer to check sheets or hand notes)?			
Attach photo copy documentation of any areas of concern			
Sample Analysis:			
-Sample ID:			
-Analysis date/time:			
-Was the sample hold time met?			
-Was the proper QC run with the sample batch?			
-Was the QC at the proper concentrations?			
-Was the appropriate QC criteria met?			
-Do all low level QC checks have adequate sensitivity?			
-Does the hard copy data correspond to the sequence report?			
-Are there any major breaks in the acquisition times?			
-Do all the samples/QC in the batch have the same method update time?			
-Do all chromatograms have corresponding information to the respective Quant Report (i.e. same file names, acquisition times, method update times, same RTs, print time)?			
-Are the response factors of the samples the same as from the calibration (calculate a few)?			
-Are the chromatograms printed using a scale that is visible?			
-Do all samples/QC in the batch have adequate peak separation, with an appropriate run time?			
-No significant contamination or matrix interference?			
-Are the peaks properly ID'd?			
-Confirmation techniques include analysis on a second column or by GC/MS.			

-When confirmation is made on a second column, that analysis should meet all of the QC criteria for calibration, retention times, etc.			
-Are all the peaks integrations appropriate and consistent?			
-Do the analytical results on the Quant Report match those on the final report?			
-Were the correct compounds used for internal standards and/or surrogates?			
-Did the internal standards/surrogates meet the method or in-house QC criteria including retention times?			
Attach photo copy documentation of any areas of concern			
Laboratory Review	**Yes**	**No**	**Comments**
-Was the analyst(s) available for interviewing?			
-Did the analyst(s) provide adequate response to the concerns found from the hard copy data review?			
-Was the analyst(s) following proper procedure? -If no, see notes or check sheets. -If no, is SOP correct? -If no, is the QAP correct?			
-Did the lab have the proper equipment and instrumentation?			
-Did the lab have the proper reagents? Expiration dates current?			
-Did the lab have adequate documentation such as run logs, maintenance logs, temperature logs and standard logs?			
Electronic Data Review:	**Yes**	**No**	**Comments**
1. Mint Miner Review (If Applicable)			
-Are any problems identified?			
In-Lab Review:			
2. High and low standard			

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	-Does the low standard have acceptable sensitivity			
	-Do all the compound peaks have adequate separation?			
	-Do all the compound peaks have appropriate and consistent integration?			
3.	Initial CCV			
	-Do all the peaks have adequate sensitivity?			
	-Do all the peaks have adequate separation?			
	-Do all the peaks have appropriate and consistent integration?			
	-Can the laboratory reprint a Quant Report and chromatogram that matches the hard copy?			
	-If yes, attach.			
	-If no, why?			
4.	Other electronic data concerns (Identified in the hard copy review):			
Attach photo copy documentation of any areas of concern				
Training: -If significant problems are noted above, do the analyst's training files show that they were properly trained?				